

Editorial: The Peer-Review Process

Peer Reviewing in a New Journal: Experiences from the First Three Years

Three volumes of this journal are now complete. The number of issues per year has increased from four initially to six last year and the number of members of the editorial board has grown from 22 (Vol. 1 (1)) to 37 (Vol. 4 (1)) in order to cope with the increasing number of both manuscripts submitted for publication and the fields of subjects to be covered. This leads to the topic of this editorial, the "Peer Review" process, which means the ordinary peer review that is mandatory for scientific high-quality journals, not the "critical review" required by ISO 14040 which also has been called "peer review" [1]. Although peer reviewing, i.e. the scrutinizing of submitted manuscripts by scientists and practitioners acquainted with the topic of the article (the "peers")¹ is a well established practice, it is by no means trivial for a new journal covering a new field of research.

From its beginnings around 1970 [2] until recently, LCA has been a freely developing assessment technique for product systems which is science-based but not a science in itself. Things began to change when SETAC entered the arena (1990) [3], and the ISO process started a few years later [4]. The start of this journal in December 1995 marked another step in the development of LCA, since the free deliberation about theories, techniques, results and limitations by publication is one of the most essential prerequisites of a truly scientific process.

The role of the peer review – anonymous and less democratic compared to the open discussion which follows publication – is to assure that the papers accepted and finally printed have the highest quality which is possible. But what is "high" quality in a young, multidisciplinary field, lacking the experience of decades or even centuries in the established fields of science, and oriented toward decision support and management rather than toward the search of rigorous scientific truth? Defining this quality has been a learning process for all participants in the early phase of establishing the journal, the reviewers, the authors and the editors. This process, of course, started before the first issue appeared and is not yet finished; perhaps it will never be, since the interplay of reviewers and authors partly defines (in detail) what belongs to the field of "Life Cycle Assessment", and what does not.

As a part or consequence of this learning process, two reviewers frequently come to opposite conclusions about the same manuscript. In that case, a third and even a fourth reviewer has to be consulted, which, of course, delays the publication process. Nevertheless, more important than taking care of a rapid lead time is to take care of a careful and profound dispute on those contradictory comments.

It also happened that one referee from two "fell between the cracks of items" as he himself formulated later. An alternative was not available for that special topic, and the author had to wait.

A very nasty example of a peer review procedure – and, thank God, the only one up to now – is that of a reviewer who unduly delayed his review comment. We sent the author the one comment submitted and asked him to wait for the second. Finally, the second comment proved to be without any true recommendation and assistance – it was useless and the author was frustrated.

Our most painful experience was the complaint of a reviewer who assumed that his name was not kept secret. The anonymous and strictly confidentially performed review procedure, however, is the backbone of this process, and we take care of it with our minds and souls. As to this day, we do not know what really happened at that time and feel burdened by this suspicion.

Some types of contributions are exempt from peer review:

- opinion papers (letters to the editor, editorials, book reviews....),
- papers of the series "LCA – how it came about", e.g. [2], and
- articles prepared by committees, e.g. the WIA2-Report in this issue [5].

The reason for excluding the latter type of communications lies in the intense internal reviewing which is mostly performed before such a work is submitted. Committee papers often have a long history (10 drafts is not an exception) and the verbal compromise finally reached can be changed only with great difficulties and a considerable loss in time.

This is a very suitable place for thanking our reviewers for the considerable time and effort spent in reviewing the manuscripts of our journal. Most, but not all of them belong to our editorial board. In order to honour the endeavour of the reviewers, board members or not, we shall publish a list with their names in the last issue of each volume, starting this year. We also thank our authors, especially the victims of the learning process described, who had to endure a long review process. Most of them have been recompensed by finally seeing their (hopefully!) improved works in print.

Walter Klöpffer, Editor-in-Chief
Almut Heinrich, Executive Editor

References

- [1] KLOPFER, W.: Peer (Expert) Review According to SETAC and ISO 14040. Theory and Practice. Editorial in No 4, Int. J. LCA 2 (1997) 183-184
- [2] HUNT, R.; FRANKLIN, W.E.: LCA – How it Came About. Personal Reflections on the Origin and the Development of LCA in the USA. Int. J. LCA 1 (1996) 4-7
- [3] FAVA, J.A.; DENISON, R.; JONES, B.; CURRAN, M.A.; VIGON, B.; SELKE, S.; BARNUM, J. (Eds.): SETAC Workshop Report: A Technical Framework for Life Cycle Assessments. August 18-23, 1990, Smugglers Notch, Vermont. Washington, DC January 1991
- [4] MARSMANN, M.: ISO 14040 – The First Project. Editorial in No 3, Int. J. LCA 2 (1997) 122-123
- [5] UDO DE HAES, H.A.; JOLLIET, O.; FINNVEDEN, G.; HAUSCHILD, M.; KREWITT, W.; MUELLER-WENK, R.: Background document for the second working group on Life Cycle Impact Assessment of SETAC-Europe (WIA-2). Part I. Int. J. LCA 4 (2) (1999) 66-74

¹ The Concise Oxford Dictionary defines "Peer" as "a person who is equal in ability, standing, rank, or value".